

Claims Status as of January 7, 2005

1. (currently amended) An end cap for an arch shape cross section leaching chamber or storm water chamber, ~~wherein the chamber has an x longitudinal axis, a z vertical axis and a y transverse axis, the end cap having corresponding axes,~~ which comprises:

an end flange for engaging the end cap with a chamber ~~x-axis~~ end;

a base flange for supporting the end cap on a surface;

a shell, connecting the base flange with the end flange, the shell having a dome shape which bulges outwardly from the nominal plane of the end flange; and,

at least one buttress, projecting extending outwardly from the bulging exterior surface of the shell surface, the buttress having a surface portion shaped for receiving a pipe through which water may be flowed to or from the interior of the end cap.

2-18 (cancelled)

19. (new) An end cap for use with an arch shape cross section leaching chamber or storm water chamber, which comprises:

an end flange for engaging the end cap with an open end of a chamber;

a base flange for supporting the end cap on a surface;

a shell, running between the base flange and end flange, having a dome shape which bulges outwardly from the nominal plane of the end flange; and,

at least one buttress, projecting outwardly from the exterior surface of the shell, the buttress having an essentially planar facet surface shaped so that a pipe can run

therethrough, to carry to or from the interior of the end cap and a chamber to which the end cap is attached.

20. (new) The end cap of claim 19, wherein the shell dome shape has a smoothly curved convex exterior surface.

21. (new) The end cap of claim 19 wherein the essentially planar facet surface runs upwardly from elevation of the base flange.

22. (new) The end cap of claim 19 which comprises two said buttresses, the essentially planar facet surfaces of which face in different directions.

23. (new) The end cap of claim 22 which comprises three said buttresses, wherein the essentially planar facet surface of a first buttress is nominal parallel to the plane of said end flange, and wherein the essentially planar facet surfaces of the second and third buttresses face in opposing directions which are nominally perpendicular to the direction of the essentially planar facet surface of the first buttress.

24. (new) The end cap of claim 23 which further comprises fourth and fifth buttresses, one positioned on either side of the first buttress, wherein the essentially planar facet surface of each fourth and fifth buttress faces in the direction which is intermediate the adjacent buttresses.

25. (new) The end cap of claim 24 wherein said three buttresses face in directions which are at about 90 degree angles to each other, and wherein the fourth and fifth buttresses are at about 45 degree angles to adjoining buttresses.

26. (new) The end cap of claim 20, wherein the shell further comprises a transition section between the dome shape portion and the end flange, and a corrugation running along the top of the dome shape portion in nominally the same plane as the plane of the end flange.

27. (new) The end cap of claim 19 further comprising a curved saddle at the lower end of essentially planar facet surface, for supporting a pipe passing through said surface.

28. (new) The end cap of claim 27 further comprising a sub-saddle at the mid-point of said saddle.

29. (new) The end cap of claim 19 wherein the buttress comprises at least two essentially planar facet surfaces, one above the other, the surfaces slightly displaced relative to each other, to provide a step between the surfaces, for providing support to a pipe which passes through the uppermost displaced surface.

30. (new) The end cap of claim 29 wherein the step is curved so said support is a curved saddle.

31. (new) The end cap of claim 19 wherein the essentially planar facet surface has one or more embossed circular regions to define one or more circular sections which may be manually cut or torn from the surface portion, to provide a hole for receiving a pipe.

32. (new) The end cap of claim 19 further comprising at least one stop inside said one buttress, for limiting the inward motion of a pipe inserted through a hole cut in the essentially planar facet surface thereof.

33. (new) The end cap of claim 19 wherein the base flange has perforation means for receiving a splash plate; further comprising: a splash plate extending into the interior of the chamber, the plate having tabs inserted into said perforations.

34. (new) A combination of a chamber, for leaching or stormwater use, and an end cap for closing off an end of the chamber, both made of thermoplastic;

wherein the chamber has an arch shape cross section and corrugated opposing sidewalls

which are free of ports for water carrying pipes; and,

wherein the end cap is attached to the end of the chamber and comprises: a shell portion having a dome shape which bulges outwardly from the plane of the end of the chamber to which the end cap is attached; and, a plurality of buttresses projecting outwardly from said dome shape shell portion, each buttress having at least one vertically running surface suited for having a hole which receives a water carrying pipe running therethrough.
surface.